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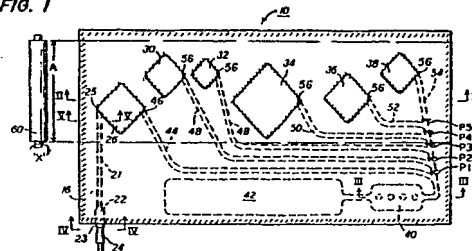
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(54) Containment cuvette for PCR and method of use.

(57) There are disclosed a cuvette (10, 100, 100C, 100D, 100E) and a method of use which prevent nucleic acid amplified by PCR technology from being released to the atmosphere, while still proceeding to a detection step to determine whether or not the nucleic acid is present. Detection reagents are either pre-incorporated into compartments (30, 30A, 30B, 32, 32A, 32B, 34, 34A, 34B, 36, 36A, 36B, 38, 38A, 38B, 40, 40A, 40B) and (132, 132A, 132B, 132C, 132D, 132E, 134, 134A, 134B, 134C, 134D, 134E, 136, 136A, 136B, 136C, 136D, 136E, 138, 138A, 138B, 138C, 138D, 138E, 139, 139A, 139B, 139C, 139D, 139E) in the cuvette or added after amplification. In the latter case, a check valve prevents amplified nucleic acid from being released. Transfer of liquids between compartments is achieved via the use of flexible compartment walls and an external pressure source (60), or via pistons

(113, 113C, 113D, 115, 115C, 115D, 184, 184C, 184E, 260) that are part of the cuvette and operate on the compartments as a piston within a piston chamber.

FIG. 1



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## EUROPEAN SEARCH REPORT

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EP 90 30 1061

### DOCUMENTS CONSIDERED TO BE RELEVANT

| DOCUMENTS CONSIDERED TO BE RELEVANT   |  |   |   |
|---|--|---|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages  | Relevant to claim                       | CLASSIFICATION OF THE APPLICATION (Int. Cl.5) |
| P,Y   | EP-A-0 318 255 (EASTMAN KODAK CO.)<br>* Column 1, line 1 - column 2, line 7; column 3, line 17 - column 4, line 14; column 4, line 32 - column 5, line 32; column 7, line 56 - column 8, line 9; column 12, line 47 - column 13, line 16; column 14, line 27 - column 16, line 58 *<br>----- | 1-14,<br>26-32,34,<br>36                | B 01<br>L 3/00<br>C 12 Q 1/68<br>G 01 N 21/03 |
| P,A<br>Y  | FR-A-2 612 295 (G. KARCHER et al.)<br>* Page 3, line 19 - page 6, line 25; figures 1,2 *<br>-----  | 16,23,24<br>1-11,<br>26-30,32,<br>34,36 |   |
| Y   | US-A-4 585 623 (H.M. CHANDLER)<br>* Figures 1-7; column 2, line 25 - column 5, line 15 *<br>-----  | 1-3,8-14,<br>26-31,34,<br>36            |   |
| A   | EP-A-0 237 362 (CETUS CORP.)<br>* Page 22, line 27 - page 23, line 6; page 27, lines 1-14 *<br>-----   | 16-22                                   |   |
| A   | US-A-4 690 801 (H.B. ANDERSON)<br>-----  |   |   |
| A   | EP-A-0 281 201 (PB DIAGNOSTIC SYSTEMS)<br>-----  |   |   |
|   |  |   | TECHNICAL FIELDS<br>SEARCHED (Int. Cl.5)      |
|   |  |   | B 01 L<br>G 01<br>N                           |
| The present search report has been drawn up for all claims                      |  |   |   |
| Place of search   |  | Date of completion of search            | Examiner                                      |
| The Hague   |  | 12 March 91                             | HODSON C.M.T.                                 |
| CATEGORY OF CITED DOCUMENTS   |  |   |   |
| X: particularly relevant if taken alone   |  |   |   |
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